

# *Horticulture Northwest*

Journal of the Northwest Ornamental Horticultural Society



*Cornus canadensis*

# Horticulture Northwest

Volume 9    Number 3  
Fall    1982

Sallie D. Allen, Editor  
**Contents**

Horticulture Northwest is published quarterly by the Northwest Ornamental Horticultural Society. Yearly membership dues start at \$15.00. Address communications regarding membership to:

Membership Chairman  
Northwest Ornamental Horticultural Society  
University of Washington Arboreta  
Seattle, Washington 98195

We welcome original articles, artwork and black and white photographs from contributors. Back issues of the Journal are available to members at \$2.50 each.

Editor:

Sallie D. Allen  
18540 26th Avenue N.E.  
Seattle, Washington 98155

Art Editor:

Mareen S. Kruckeberg

Ad Manager:

Shirley Gorman

Editorial Staff and Advisors:

Dr. William H. Hatheway	Mr. Marvin Black
Mrs. Brian O. Mulligan	Mr. Brian O. Mulligan
Mrs. E. C. Darts	Mrs. Harold Miller
Mr. Ed Hume	Mr. Joseph A. Witt
Ms. Mary Kenady	Mr. Brian Halliwell
	Mrs. Leo P. Cunningham

1982-1983 Northwest Ornamental Horticultural Society Officers:

President:  
Ms. Katherine Carey

1st Vice President:  
Mrs. Leonard Wilcox

2nd Vice President  
Mrs. Phil Duryee

3rd Vice President:  
Mrs. Harold Hawkins

Recording Secretary:  
Mrs. Ward Doland

Corresponding Secretary:  
Mrs. Gordon B. Anderson

Treasurer:  
Mr. Robert Flanagan

Assistant Treasurer:  
Mrs. David E. Martin

Past President:  
Mr. Lester W. Pettit

Term to 1983:

Mrs. Herschell H. Boyd	Mrs. Harold L. Hawkins
Mr. Willis W. Collins	Mrs. Philip Padelford
Mrs. Phil Duryee	Mr. John A. Putnam
Mr. Leonard Eshom	Dr. James Warren
Mrs. William L. Gorman	

Term to 1984:

Mrs. Gordon B. Anderson	Mrs. David E. Martin
Mr. James Brinkley	Mrs. Richard E. Parks
Ms. Katherine Carey	Mr. Bernard Orell
Mrs. Gerald Child	Mrs. James P. Scott
Mrs. Leo Cunningham	Mr. Robert Flanagan
Mrs. Kemper Freeman	

Term to 1985:

Mrs. Brian Mulligan	Mrs. Arthur R. Taylor
Mrs. A. R. Kruckeberg	Mrs. Henry C. Isaacson, Jr.
Mrs. Charles E. Lile	Mr. Peter Johanson
Mrs. Newell Lindberg	Mrs. Leonard Wilcox
Mrs. Ward Doland	

Plant Sale - Special Edition

Trees & Shrubs - Advantages of Fall Planting  
Roberta A. Wightman . . . . . 41

Ferns - Polypodium Scouleri  
Ed Alverson . . . . . 42

Bonsai - Quercus Subur  
Sharon Muth . . . . . 44

Ground Covers - Cornus Canadensis  
Marvin Black . . . . . 46

Collectors Corner - Schizocodon  
Steven G. Doonan . . . . . 48

Rhododendrons  
Renee Hill . . . . . 50

Horticultural Research in China  
Betty Carey Miller . . . . . 51

Layers of a Hokkaido Forest, Part IV  
Brian Halliwell . . . . . 53

A Bouquet for Seattle  
Charles A. Lewis . . . . . 56

Book Review . . . . . 57

Seed Exchange . . . . . 58

Joseph A. Witt Acclaimed for Devotion  
to Community . . . . . 59

Prunus Triloba  
Brian Halliwell . . . . . 61

Tidbits . . . . . 62

Cover Illustration:  
*Cornus canadensis*  
Vernese Sharp Larochelle





# Plant Sale - Special Edition

Compiled by Sallie D. Allen, Seattle, Washington

The NOHS Fall Plant Sale will be held Thursday, September 30, and Friday, October 1, 9:30 a.m. - 9:00 p.m. both days, at the Bellevue Square Shopping Mall. Each department has unusually exciting plant material this year; some of the featured items are described in the following pages.

## TREES & SHRUBS - ADVANTAGES OF FALL PLANTING

Roberta A. Wightman, Seattle, Washington

One could make a sweeping statement and say "Fall is Nature's planting season," and one would be correct for many of our woody and herbaceous plants which reproduce their species by seeds. Generally the seeds lie dormant through the winter and then, as the days are longer and the soil is warmer, the seeds begin to germinate and sprout.

So too, with plant materials already rooted and established, is autumn a favorable time for transplanting, whether from nursery-grown stock or from your own seedlings or rooted cuttings. You won't see much if any new top growth after a fall transplant but roots will slowly establish themselves in the new location, provided, by nature, with extra moisture and progressively cooling temperature. Any air pockets left by a not too careful planter (one who plants - NOT a container!) will be filled by soil settled gently by fall rains.

Always provide security for newly moved trees, deciduous and evergreen, with at least two guy stakes, driven in to the hole before re-filling, so you can see that you haven't driven the stake through the "best" root section of the tree. Fasten the stakes to the tree with padded wire. Needless to say the stakes should be driven into firm, undisturbed earth, and should be four and one-half to five feet above the ground. Check tightness of guy wires periodically. If they are not really holding the tree firmly, so that its trunk doesn't sway in the wind, then they are useless. Leave stakes supporting tree--guy stakes--for six months. After removing from soil, give your tree a treat: fill the holes with bone meal. A non-burning, slow release plant food. You will be well rewarded. Tree feeding is a neglected garden procedure by many of us. Nothing but good can come from this care. Yet we usually spend lots of time and money on lawn care, flower and shrub fertilizing, but what about the trees? Letting the hose run slowly to soak into the feeding root zone of a fruit tree in summer and early fall will result in larger, juicier crop. Try it.

In late autumn, after most deciduous trees have shed their leaves, which means dormancy, you may move deciduous and some conifer trees bare rooted, providing you take several vital precautions. This procedure requires expert, experienced help and/or supervision, and several essential precautions must be taken. Advantages are, among several, that you can move a larger tree without having to haul, transport, drag and lift a several hundred pound "ball" of dirt. This is especially useful if one were moving a tree up a steep slope or in an area inaccessible for motorized digging, moving and lifting equipment. Perhaps a future article can provide more detail as to this procedure. Late fall and winter are the times for bare rooted moving.

So, take advantage of nature's help and plant this fall. This year in the Tree and Shrub section of the Fall sale, we are stressing materials for fall and winter color. Our most brilliant autumn coloration comes, of course, from deciduous material. So leave room in your garden for; some maples, sumacs, winged burning bush, Exbury azaleas, smoke tree, dogwoods; the late flowering potentillas, ceanothus, hardy fuchsias, etc., and the berries of *callicarpa*, *skimmia*, *stranvaesia*, *viburnums*, etc.

\* \* \*

#### FERNS - POLYPODIUM SCOULERI

Ed Alverson, Olympia, Washington

The native leathery polypody, or leather-leaf fern, *Polypodium scolieri*, is a distinctive plant of coastal forests. With simple pinnatifid fronds and creeping rhizome, it is easily recognized as a relative of the common licorice fern, *P. glycyrrhiza*. But there should be no confusion between the two species. *P. scolieri* is almost tropical in appearance, with thick, glossy, dark green fronds, and large pinnae broadly rounded at the apex. The fronds are truly evergreen, remaining green for at least two years. The sori are another feature, forming large orange dots on the underside of the frond when mature. The sori are, of course, clusters of numerous sporangia, from which the spores are released as they ripen.

The specific name honors Dr. John Scouler, a companion of David Douglas, who collected the type specimen in 1825 at the mouth of the Columbia River. This fern has a rather wide range, growing naturally from the Queen Charlotte Islands in British Columbia south along the coast to Baja, California. But the curious thing about *Polypodium scolieri* is that it never occurs more than a few miles from the ocean. There seems to be no obvious reason for this restricted distribution, as it is not difficult to cultivate away from the coast. Perhaps it is simply due to an inability to compete further inland with less salt tolerant plants that occupy a similar ecological niche. *P. scolieri* usually occurs as an epiphyte, often forming large clumps on the stout limbs of wind-sculpted sitka spruce, though it is sometimes found growing in soil at the bases of trees or on rock outcrops. A good place to see *P. scolieri* is in the vicinity of the Klaloch campground in Olympic National Park, where the plants are particularly lush and robust.

*Polypodium scolieri* should be a staple of coastal gardens, where it would seem to be most at home. Yet it is not difficult to grow away from its natural habitat, given proper attention to cultural requirements. This means giving it partial shade in cool and humid surroundings, and the good drainage that is provided by the epiphytic habitat. A soil mixture high in organic matter, such as decaying wood, would help the roots to remain comfortable during dry spells. The thick, leathery fronds provide a substantial resistance to dessication, so that the size of the plant could be controlled by the amount of summer water it gets. Small plants, given little water once established, would be quite attractive in a rock garden setting. Set against a boulder or log in a moister setting, *P. scolieri* would go well with other native evergreen ferns such as *Dryopteris arguta* and *Woodwardia fimbriata*, as well as smaller evergreen shrubs and low ground covers. Given proper placement and culture, *P. scolieri* is a fern that is liable to melt the heart of every fern lover.





Illustration:  
*Polypodium scolieri*  
Vernese Sharp Larochele

## BONSAI - QUERCUS SUBER - THE CORK OAK

Sharon Muth, Kent, Washington

Of the 450 species of oak, both deciduous and evergreen, found in the North temperate zones of the world, *Quercus suber* the cork oak is unique. Its uniqueness is its bark. All oaks have a rough deep ridged bark, but the cork oak goes beyond, producing a bark which is extraordinarily thick. And for this characteristic, it has been used by man since ancient times as a source of cork, and is still today an important commercial product.

The suber oak is native to the Mediterranean region, North Africa and Southern Europe. It is an evergreen with a temperature range of zone 6-7. It reaches full height of 60 to 70 feet with almost an equal spread and a rounded, somewhat open crown. The branches are massive and the trunk short. Its leaves are three inches long, toothed, dark glossy green above and grey underneath. The cup covers one-third to one-half of the nut which measures two inches in length and three-fourths of an inch in width. Soil requirements include good drainage, however this oak is quite tolerant of different soils, but is likely to yellow if the soil is too alkaline.

*Quercus suber* was first introduced into the United States during colonial times. It is said that Thomas Jefferson was one of the first Americans to recognize the merits of this oak. It wasn't until the late 1850's that large plantings occurred under the auspices of the Department of Agriculture through their distribution of *Q. suber* acorns. During the 1950's the Crown Cork and Seal Company of Baltimore as well as several other agencies conducted extensive plantings of the cork oak for commercial cork production. There are over a hundred thousand oaks producing cork in the U.S.

The tree puts on a thick uniform layer of bark that can be stripped and removed. This process does not injure the underlying cambium tissue. The first crop can be taken when the tree is approximately 15 to 20 years old. The first crop is of poor quality; its use is mostly for tannin. With the second crop, approximately eight to ten years later, after another build-up of cork, a finer quality of cork is produced. By the third harvesting the cork is of excellent quality. One use of this quality cork is the production of champagne corks. Due to the interval of time it takes to produce a crop, the U.S. still imports large quantities of cork from abroad. The big producing countries are Spain, Portugal, India and Algeria.

*Quercus suber* is a valued ornamental tree, with one disadvantage, the soft bark which is easily marred by carving. In the Seattle Arboretum are two cork oaks planted in 1953, now about 12 feet tall, and have yet to produce any acorns. Records indicate that they have suffered from cold and snow.

*Quercus suber* is borderline here in the Seattle area only when we experience a really harsh winter. As for its use as a bonsai specimen, it should be considered an excellent choice. The small leaves, short opposite internodes and interesting branch pattern indicate that it has some of the

basic requirements that bonsai people look for in choosing a tree to bonsai. The bonsai section at the fall plant sale will have an ample supply of cork oak seedlings.



Illustration:  
Quercus suber  
Sharon Muth

Quercus suber



## GROUND COVERS - CORNUS CANADENSIS

Marvin Black, Seattle, Washington

I never met Leo Hitchcock, but I'd like him. My soul delights in a botanist who will admit--in print!--that he likes a plant, that it is or would be good in a garden. Happily, Art Kruckeberg, in his recent Gardening With Native Plants of the Pacific Northwest also champions many natives as garden plants. But Hitchcock, unlike virtually any botanist I've run across, slips little hurrahs for certain plants directly into his scholarly five-volume Vascular Plants of the Pacific Northwest. Such audacity! Right there in Part Three he says about *Cornus canadensis*:

"It would be difficult to overestimate the ornamental value of this charming little plant, which can be introduced readily by taking up a small amount of soil; it spreads readily, but not too aggressively. It is almost equally attractive in flower and in fruit."

All who meet *Cornus canadensis* tend to be charmed at this munchkin of a dogwood that, if it stretches, towers to four inches high. If you compliment its flashy little white flowers, some smart-aleck will sneeringly inform you that they're not really flower-petals you're admiring, they're bracts. Bother them, everybody calls them flowers, just as with poinsettias (try the line "What handsome bracts your poinsettia has!" You'll get a startled aren't-you-weird look). If this little plant can't stretch high enough to suit you, drag a rotting stump into the garden, or plant your plant by one and it will dive into cracks in the rotting wood and emerge quite a bit higher, like a kid in a tree. In the Olympics I've seen it achieve ten feet above the ground this way, and in Lawrence Pierce's garden of rhododendrons it climbs stumps to better watch the parade.

Rotten wood is a clue to its not-always-easy cultivation in the garden. Many gardeners fail with it, in spite of Hitchcock's words above and Farrer's admonition that it "forms ramping wide colonies quickly, and grows too heartily to admit of company." But this is a plant of moist woodland, usually shaded, and it dislikes drought; in our lowland gardens isn't tolerant of much sun unless it is well mulched or plenty moist. Give it leaf mold and compost, peat or rotten wood, and its creeping underground rhizomes will take heart from Mr. Farrer's words. One Blue Ridge neighborhood had a lawn being invaded by *Cornus canadensis* which was a groundcover under nearby shrubs. The lady was digging it out. She traded me a large sod of it for my offered large sod of *Asperula odorata*, sweet woodruff, which she'd never seen. She had a large empty area under 15-foot tall *Rhododendron* 'Loderi King George' and wanted a groundcover to quickly cover. We both chuckled secretly, each being sure she/he had disposed of a bit of a weed problem!

You'll find the dwarf cornel or bunchberry (common names for *Cornus canadensis*) in our Puget Sound woodlands, but usually not until you've climbed up into the foothills, and it continues up to 3,000 or more feet.



It is widespread in the mountains as far south as California and New Mexico, and at lower elevations from the North Pole south to Pennsylvania and Minnesota, north to Greenland and west over into Asia. It grows as a carpeter and is dotted in midsummer with the four-parted white bract-flowers above a whorl of green leaves, rather like a trillium with parts in fours (the leaves are usually four or six, sometimes seven), but in the center is a tiny flower which then can produce a little knot of cherry-red berries. English gardeners have great difficulty getting the berries to form. In nature, and in most Washington gardens, it may be hit-or-miss with a few berries. Sallie Allen's garden suits this plant and it looks like Christmas under the ericaceous things every July.

Grow the plant from sods as mentioned, or from seeds, or from summer cuttings which can be rooted or separated with roots attached. Anybody for a munchkin?

\* \* \*

#### SEED EXCHANGE

It may be too late for many species, but keep your eyes open for ripening seed of rare or interesting native or ornamental trees, shrubs, and herbaceous plants. We received seed from Australia, British Columbia, Georgia, Colorado, and Arizona for the last Exchange and hope to have more next time--maybe even from New Zealand (if I can twist Jim LeComte's arm).

Let the "pods" open naturally, if possible, and put seeds in envelopes in refrigerator. Send to Sylvia Duryee (after October 1) or Marge Baird. If seeds make envelope bulge at all, ask that it be "hand cancelled, please."

Tentative closing date for receipt of seeds is December 31st. However, if you know of seed that will ripen and be available after that date, let us know so we can list it.

Mrs. Phil Duryee; 1115 - 41st East, Seattle, Washington, 98112  
Mrs. Hugh Baird; 8928 Northeast 33rd, Bellevue, Washington, 98004

"The myriad seeds such pleasure bring  
To man and beast and bird a-wing;  
The blackbirds love my cypress "cones,"  
The jays enjoy my cherry stones  
Robins my flowering crabs adorn  
Though quail, of course, prefer the corn.

Some seeds have wings and fly around  
While others roll upon the ground  
I think God loves, with blameless pride,  
The wondrous life asleep inside!"

Excerpt from paper on seeds prepared for Seattle Garden Club, 1974.

\* \* \*

## COLLECTOR'S CORNER

## SCHIZOCODON SOLDANELLOIDES VAR. ILICIFOLIA

Steven G. Doonan, Issaquah, Washington

How can such a small plant have such a long name? As with many botanical names, *Schizocodon* is a description of the plant; schizo means divided, codon means bell, this refers to the divided (fringed) bell-shaped corolla. The *soldanelloides* or species name refers to the general appearance of the flower of *Soldanella*, a genus of the *Primulaceae* family; the suffix *oides* means like, so we have "like a soldanella." The genus *Schizocodon* has many varieties and the one described, *ilicifolius*, has holly-like leaves, *Ilex* means holly, with the combination of the taxonomic word for leaves, folius. This is a good botanical name for beginners to start with because it has a comprehensible and logical name, and when understood, is easy to remember.

Members of the *Diapensiaceae* family, (to which *Schizocodon* belongs), are found in the northern hemisphere from Britain, northern Europe, USSR, China, Japan, Alaska and eastern United States. The family includes such well known genera as *Galyx*, *Diapensia*, *Pyxidantha*, *Shortia* and *Schizocodon*; there are several other rare genera that have just been introduced from China by Japanese plant enthusiasts, *Berneuxia* and *Shortiopsis*.

The genus *Schizocodon* has been lumped by some taxonomists with *Shortia*, in fact most current references include them both under the generic name of *Shortia*. The grounds for keeping them distinct and separated are as follows: 1) *Shortia* has a single large flower with few teeth in the corolla, where as, *Schizocodon* has several to many flowers per stalk, and the corolla is always deeply cleft giving a frilly appearing flower. 2) Another difference is the blooming time. *Shortia* is very early, with frosting of open flowers a problem in an exposed position. *Schizocodon* generally bloom a month later and make their showing with masses of flowers. 3) The seeds of *Shortia* ripen in about three weeks and must be planted fresh for them to be viable. The *Schizocodon*, on the other hand, will have ripe seeds in October, six months after flowering, and the seeds remain viable for several years if properly stored in a cool area. 4) As yet attempts to cross the two have been unsuccessful, lending further support to separate genera status.

*Schizocodon soldanelloides*, have five known varieties, *ilicifolius*, *alpinus*, *intercenens*, *magnus* and *minimus*. *S. s.* var. *ilicifolius* is native to Japan and is found in moist humus under the high shade of deciduous trees in the upper montane zone or above timberline, growing in the protection of *Gaultheria miqueliana* and shrubby *Sorbus* sp. in pumice and accumulated humus.

*Schizocodon* are much sought after for their beautiful flowers and their very waxy evergreen leaves. In the winter the foliage turns appealing shades of red when they receive some sun. They do best in a woodland situation of high shade similar to a rhododendron and fern habitat. They thrive in loamy soil with a humus mulch to retain moisture. Practical experience has shown that schizocodons and shortias need to be fed. A vigorous plant has more



resistance to leaf spot disease that affect many ornamentals. They do well with one half strength fish fertilizer applied several times in the early growing season.

*Schizocodon soldanelloides* var. *ilicifolius* is frost hardy in the Pacific Northwest and long lived; specimen plants here are many decades old. New plants need careful attention the first few years until they get well established. They are best propagated by summer wood cuttings in late June in a closed frame or by slower seedlings raised much like rhododendrons.

Look for this rare gem of the plant kingdom in the Collector's Corner of the NOHS Fall Plant Sale.

Illustration:  
*Schizocodon*  
*soldanelloides*  
*ilicifolius*  
 Sally Dickman



## RHODODENDRONS

Renee Hill, Bellevue, Washington

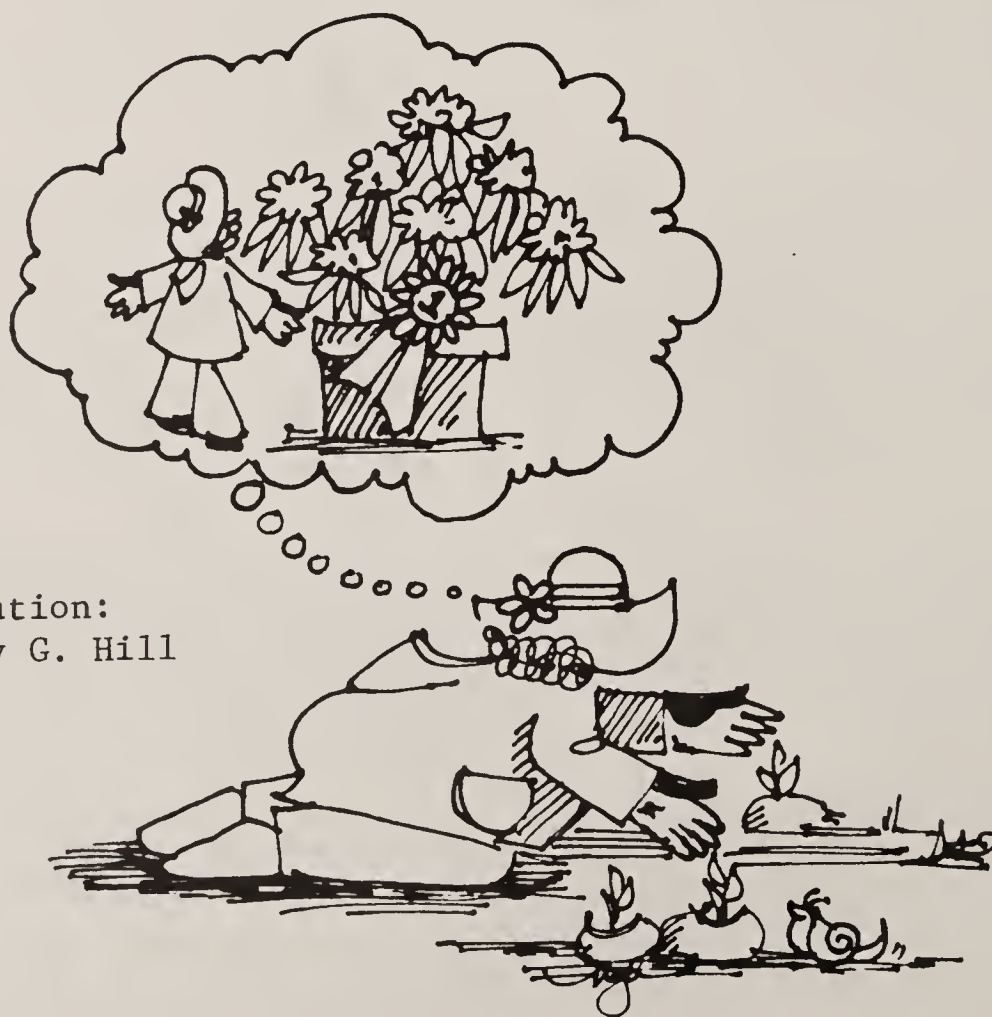
NOHS is especially fortunate this year to be able to offer seedling plants grown from collections of Peter Cox, well-known plantsman of Scotland, made during the 1980 Sino-British Expedition to Western Yunnan, China. This was the first plant exploration to China in more than 25 years and was made possible by cooperation with British scientists, privately endowed, and the Yunnan Institute of Botany. Mr. Cox was able to secure seeds from a surprising number of plants, even though their exploration was during the blooming season.

The Rhododendron Species Foundation has raised seedlings hardy to our area. Because NOHS was one of Mr. Cox's subscribers, the RSF is sharing these choice seedling plants with us. Seventeen varieties of Rhododendron, as well as *Buddlea forrestii* and *Philadelphus delavayi* are promised.

THINK SMALL - Many are the advantages of starting small with permanent plants for your garden. Rhododendrons, especially, adapt very well to the use of small plants in your home landscaping--in fact, many are available in no other way.

A small plant of a choice variety is the only "bargain". A young plant will readily acclimatize to your garden; is easy to plant; move, if necessary and train to fit the area. Species rhododendrons are almost always available only as young plants. New varieties of hybrids, also, are more likely to be acquired as a small plant. Price is reflected, too, in the size.

Illustration:  
Nancy G. Hill





# Horticultural Research in China

by Betty Carey Miller, Seattle, Washington

Attention to horticultural scientific research is accelerating throughout the world. There is a new awareness of its value in serving the needs of human welfare. In China, horticulture and horticultural plants are being investigated intensively for practical purposes.

It is claimed that China is a world leader in reforestation. During the past 30 years, much of the predominately treeless land has been transformed into young forests. In traveling by train or by air from Peking westward and south to Canton the mountainous terrains and valleys are solidly planted with young trees if not given to agricultural use. The plants used were for the purpose of filling such practical needs for human survival as fuel, food, wood for furniture and tools, and medicinal products. The vast scale of these plantings is awesome to behold and because it is possibly beyond their means for a pest control system, fertilization, or other maintenances, the plants chosen are tolerant of the existing environmental conditions of each particular site, insect and disease resistant, drought tolerant and with minimum maintenance demands. The Chinese are also intensively experimenting with biological control. In one case, where the workers in a rice field were suffering from the use of insect sprays, they found that equally good insect control could be achieved by frogs. Multitudes of frogs were introduced and it became forbidden to kill one. And in China, the word "forbidden" is respected.

The average tourist comes away from China appalled to see trees so thickly planted along thoroughfares, small lots, streetsides, or wherever there is any available space. Young trees 15 to 25 feet high may be planted a mere three feet apart with all lower branches removed. Visitors do not realize that this practice serves as supplementary nursery stock. These plantings are thinned out as the trees are transplanted to other areas such as: "in the north China area where sandstorms are frequent and soil erosion severe, they are planting a forest shelterbelt covering 5.3 million hectares (over 13 million acres). A magnificent Great Green Wall will appear by 1985"\* and "will eventually cover 200 million acres."\*\*

The people of China live in neat but very crowded conditions and at the same time have a strong love for plants and flowers. Compensation lies in the numerous large areas of beautifully landscaped public parks. From overhead, the parks seem to be teeming with people. However, artful landscape designs have created a succession of cul-de-sacs walled with trees and flowering shrubs, which permit privacy for family groups amidst the crowd. Public buildings, hotels, and even railroad stations are extensively planted with showy displays of ornamental plants.

Unfortunately, language barriers impede the advancement and extension of horticultural information among the Chinese botanists and taxonomists. The people of China's 50 provinces speak just one of nearly as many dialects (the Manchurian dialect is now being taught throughout China to provide a common

\* "Peking Review" 48, December 1978

\*\* "Celebrations of Life", Rene DuBos, 1981

language). Further, during the Cultural Revolution many horticultural scientists and botanical garden personnel were sidetracked to work in the fields on problems of a practical nature. So it seems that although the overall level of horticultural scientific work in China, with the exception of some special institutions, may be less than Western standards, their practical exploitation of horticultural plants for the survival of the people is far in advance. In the U.S., primary effort is given to research on the production of horticultural plants and products. In China, equal or more emphasis is given to the utilization of plants to provide basic needs.

Most issues of the China Pictorial include an illustrated article covering some phase of their horticultural research. The following is typical: (China Pictorial #1, 1981)

"The Chinese gallnut has long been used in traditional medicine to stop bleeding, kill pain, cure dysentery and counter-act inflammation. Now, with the development of modern science, its range of uses is becoming increasingly wide.

"The gallnut's tannin and pyrogallol are used as a catalyzer and stabilizer in fuel for space rockets. Its tannin can also be made into an anti-corrosive paint needed by ocean-going vessels and, perhaps even more significantly, used for the separation and precipitation of such active rare metals as uranium, thorium, niobium and neodymium. The synergist made from its tannin has been accepted in medical circles as a promising new drug, which, if used together with sulfonamide antibiotics, can increase their efficiency from ten to several dozen times. The gallnut's tannin is also used in the manufacture of quality fancy leather and as a mordant which gives the dyes a strong affinity for synthetic fibres. The pyrogallol obtained from it is an important developing agent used in making cinematic colour films and a desulphurizer employed in chemical industries. Chemists use its tannin as a reagent to detect a number of trace elements and its gallic acid as an inseparable intermediate to make synthetic drugs and dyes. In sum, chemicals extracted from the Chinese gallnut are being increasingly used in petrochemical, metallurgical, chemical, machine building, pharmaceutical, sensitive material, new-type plastics, light industrial and food industries and in scientific research institutes working in national defense." All of this from a gallnut!

These gallnuts are not nuts as such but swellings of plant tissue on the Chinese sumac trees and caused by parasitic gall aphids. Ten types of gallnuts are produced by different aphid species. A traditional Chinese farm by-product, they have in recent years developed a successful business for purposes described above by large scale cultivation of the sumacs and systematic raising of the aphids. This demonstrates another scientifically based horticultural achievement.

Further horticultural activity will be covered at a lecture to be given by Alan P. Godlewski, Missouri Botanic Garden in October 1982, Northwest Ornamental Horticultural Society Lecture Series.

The University of Washington Center for Urban Horticulture is the first academic unit in the U.S. to provide research and graduate teaching on the utilization of horticultural plants. A combination of the Western approach to sophisticated scientific research and the Chinese approach to practical solutions serving human needs offers great advantages. The Northwest Ornamental Horticultural Society has a concentrated interest in supporting this effort.



N.O.H.S. NOTES

FALL 1982

Supplement to the Horticulture Northwest

Shirley Gorman, Editor

President's Letter

Dear Members and Friends:

Summer is coming to an end and it is time to begin thinking of our winter gardens. We have several events coming up this fall that will be of benefit to everyone.

September 30th and October 1st is the annual N.O.H.S. Fall Plant Sale to be held at the Bellevue Square. Jean Wilcox and her committee chairmen have been working hard during the summer to find rare and unusual, native and common plant material from ground covers to trees and shrubs.

October 13th, at 7:30 p.m., at the Museum of History and Industry, Alan Godlewski from Missouri Botanical Garden will give a lecture entitled "China: The Mother of Gardening by Necessity." China leads the world in practical horticulture. This should be an exciting, as well as informative lecture for everyone.

November 10th, at 10:30 a.m., at the Museum of History and Industry, Dr. Daniel Stuntz will be giving a lecture on "The Mushroom: The Irresistible Fungi." He will also give this lecture in Tacoma on October 20th. Dr. Stuntz is from the University of Washington.

I would like to thank Sue Olsen and her committee for a very successful Fern Sale. Her hard work, wonderful plant material and everyone's interest made the sale a happy experience for all the volunteers who worked on it and for those who attended.

I look forward to seeing everyone at the coming events this fall.

Sincerely,

Katherine Carey  
President

KC:st

# WELCOME NEW MEMBERS

AMES, Mrs. Paul (Stephana) 206 217th Ave. N.E., Redmond	392-2210 98052	SCAMPORLINA, Daniel J. 3566 Sunset Dr. W., Tacoma	565-0339 98466
BACOKA, Mr. & Mrs. John T. (Dolores R.) 3614 W. Lawton, Seattle	284-6136 98199	SCHMECHER, Mrs. Donald A. (Frances) 1409 McGilvra Blvd. E., Seattle	323-4696 98112
BLACK, Susan E. Rt. 2, Box 197A, Burton	463-5250 98013	SELIGMAN, Mrs. Harold (Maxine) 2624 W. Viewmont Way W., Seattle	283-2880 98199
CARLSON, Nell H. Boundary Ln. - The Highlands, Seattle	98177	SIEVERTS, Mrs. W.E. (Ruth) 205 164th Ave. N.E., Bellevue	746-4613 98008
COSBY, Mr. Brian 1561 3rd St., Kirkland	827-7243 98033	VANE, Ms. Linda 7349 16th N.E., Seattle	523-1745 98115
FLANAGAN, Robert 104 N. 137th, Seattle	365-0389 98133	VARGHA, Mr. & Mrs. Louis A. (Maite') 29848 6th Ave. S., Federal Way	839-2368 98003
HARRIS, Mrs. Peter (Grace) 7619 15th Ave. N.E., Seattle	525-6978 98115		
HUSTON, Barbara B. 715 W. Prospect, Seattle	282-9076 98119		
MARTELL, Daniel E. 33610 S.E. 49th St., Fall City	98024		
MULLER, Mary Clay Box 1042, Sitka, AK	747-6734 99835		
NORRIS, Joan C. 11625 S.E. 46th, Bellevue	746-9741 98006		
OGBURN, Charles E. 2717 N.E. 88th St., Seattle	525-2177 98115		
PETTY, M. Denise 3637 Palatine Ave. N., Seattle	634-1694 98103		
REED, William G. (Victoria) Box 301, Medina	454-6409 98039		



## COMING EVENTS

September 22nd  
October 2nd  
October 27th  
November 9th  
November 24th

EXPLORERS BACK FOR AUTUMN 1982  
Meet 10:00 a.m.  
Two hour guided tours of Arboretum  
Arboretum Offices

September 23rd  
October 28th

FOURTH THURSDAY WEEDERS  
Meet 10:00 a.m.  
Arboretum offices

September 30th  
October 1st

N.O.H.S. FALL PLANT SALE  
9:30 a.m. to 9:00 p.m., Bellevue  
Square. Featuring shrubs, ground-  
covers, Topiary Bonsai section,  
Collector's Corner.

October 6th  
October 7th

ARBORETUM FOUNDATION BULB SALE  
10:00 a.m. to 5:00 p.m.  
Arboretum Office parking area.

October 9th  
November 6th  
December 4th

EDMONDS COMMUNITY COLLEGE  
Learning disabilities and educational  
disadvantaged.  
Children establishing roots with  
nature.  
Seminars and Gardening.

October 13th

N.O.H.S.  
"China the Mother of Gardening by Necessity"  
7:30 p.m. Lecture  
McCurdy Room--Alan P. Godluski  
Museum of History and Industry

November 10th

"The Mushroom, the Irresistible Fungi"  
Dr. Daniel Stuntz  
Wednesday, 10:30 a.m.  
Museum of History and Industry

## AMERICAN RHODODENDRON SOCIETY

The 1982 Western Regional Rhododendron Conference of the American Rhododendron Society will be held this year at the Seattle Hyatt Hotel, 17001 Pacific Highway South (near the Seattle-Tacoma International Airport).

The dates are Friday evening, October 1st, all day Saturday, October 2nd, and Sunday morning, October 3rd. Registration fee is \$15.00.

The program will feature the latest new Western Rhododendron and Azalea hybrids, many of which have never been seen before.

Additional programs will feature knowledgeable speakers from California, Oregon, Washington and British Columbia, speaking to the myriad of cultural problems of rhododendrons in their areas.

Bonsai of Rhododendrons and selected garden tours will complete the Conference.

Particulars and registration available from:

Mr. David Jewell, Registrar, W.R.R.C.  
8711 Winslow Drive S.W.  
Olympia, WA 98052

Or call (206) 866-0460, or (206) 866-7438.



Membership Application  
NORTHWEST ORNAMENTAL HORTICULTURAL SOCIETY

### Policy:

To give financial support to the University of Washington Arboreta program and to other horticultural education endeavors.

### Membership activities encompass:

Lecture Series, Study Groups, Annual Fern and Plant Sales, Tours of gardens of horticultural interest, Horticultural Journal.

(Please fill in form as you wish information to appear in yearbook.)

Mr. \_\_\_\_\_ Mrs. \_\_\_\_\_ Ms. \_\_\_\_\_ Miss \_\_\_\_\_

Name \_\_\_\_\_ (First Name) \_\_\_\_\_

Address \_\_\_\_\_ Phone \_\_\_\_\_

City & State \_\_\_\_\_ Zip \_\_\_\_\_

New Member (date) \_\_\_\_\_ Or Renewal (date) \_\_\_\_\_

(Membership renewals will come due January, May and September,  
Whichever month is closest to date of Membership Application.)

PLEASE MAKE CHECKS PAYABLE TO:  
Northwest Ornamental Horticultural Society

MAILING ADDRESS:  
University of Washington Arboreta XD10  
Seattle, Washington 98195

TELEPHONE: 543-8800

### TYPES OF MEMBERSHIP: (Please check one)

<input type="checkbox"/>	Life	\$500.00
<input type="checkbox"/>	Supporting	\$50.00 to \$100.00
<input type="checkbox"/>	Contributing	\$25.00 to \$ 50.00
<input type="checkbox"/>	Active (Individual)	\$ 15.00
<input type="checkbox"/>	Group or Family	\$ 20.00
<input type="checkbox"/>	Nursery (Member Listing)	\$ 20.00



# Layers of a Hokkaido Forest

Brian Halliwell, Royal Botanic Garden, Kew, England

## Part IV Some Japanese Lianes

All climbers in Hokkaido forests are deciduous and although the term liane or liana is more usually applied to the hanging stems of tropical forests or jungles, it can be used as an alternate word for deciduous climbers in a temperate region forest. As the forest canopy was high it was often difficult to be able to see leaves, flowers and fruits of many kinds of these climbing plants unless they were at the edge of the forest, amongst regrowth or alpine scrub or occasionally on fallen trees. Climbers which have lax stems have developed adaptations to take their stems up toward the light; twining stems or petioles, tendrils, climbing roots or thorns.

The commonest of all climbers in a Hokkaido forest, *Hydrangea petiolaris*, begins life as a small plant which grows along the ground until it reaches the trunk of a tree up which it will climb by means of roots as in ivy. When the stem reaches the light above the forest canopy it changes its habit by beginning to branch and stems no longer produce climbing roots. Flowers are produced in June which like so many hydrangeas have an outer ring of sterile petal-like bracts. At first these are whitish tinged with green, but as they age become greener, turning eventually brown but keep their form long after flowers have finished their reproductive role. With age the climbing roots begin to shrivel and increasing weight causes stems to break away from their support so that they hang like ropes which sometimes can be as thick as a man's arm. This plant was seen in various habitats; in clearings where there were no nearby trees, they would build up into squat spreading shrubs; on one occasion I saw an extensive cliff face clothed with climbing shoots which had leaves of many different sizes and shapes.

Another plant which supports itself by climbing roots is *Rhus ambigua*. Its leaves which are divided into threes are covered with hairs which are to be avoided at all costs. If they come in contact with bare skin in humans, they can cause a painful rash. Like its American cousin, *R. radicans*, poison ivy, it has an attractive garb in its rich red fall colour.

*Celastrus orbicultatus* is a vigorous woody climber which supports itself by its twining stems. Rarely seen in the forest, although it may well have been there, it seemed more common on the upper forest limits amongst alpine scrub or regrowth. In such places its intertwining stems resulted in an impenetrable tangle. Flowers in this plant are insignificant and its attraction is its fruits. These, when ripe, are a dull red which split open to reveal their inner yellow surface to which are attached scarlet seeds. In a garden this climber is best planted so as to grow up and over or through an old or dead tree. Male and female flowers are usually (but not always) produced on different plants so two plants should be chosen, one of each sex, and planted together. They have a long life on the stems and seem untouched by birds even in the coldest weather.

Another twiner also with attractive fruits is *Akebia trifoliata*. In gardens this climber is grown for its curious brownish purple flowers which are produced as leaves are about to burst forth in April. In the bunch of flowers of different sexes; the first to open and the showiest are the females. It is uncommon to see fruits in gardens, no doubt because the suitable pollinating insects are not present. If however pollen is transferred from anthers to style by a camel-hair brush, deep purple, sausage-shaped fruits about six inches in length will develop. When ripe these split open lengthways to reveal a mass of sticky white pulp in which rows of black seed are embedded.

Another extremely vigorous twiner, *Actinidia arguta*, is a relative of the Chinese gooseberry, now better known as Kiwi fruit, *A. chinensis*. Mostly this is lost amongst the tree canopy but its presence becomes known from the pleasant scent of its ripening fruit. Whereas the fruits of Kiwi fruit can reach three inches and have a rough brown skin, those of *A. arguta* are about an inch in length, have a smooth skin and are yellowish green in colour. I found them pleasant eating although not as tasty as the fruit imported from the Antipodes. The Japanese use the fruit to make wine, a beverage I would like to sample. Fruit which was gathered for seed was stored in bags in the vehicle in which we were travelling and it soon began to ferment, so for two weeks we drove in a vehicle impregnated with a pleasant winey smell.

Less vigorous was another twiner, *Schizandra chinensis*, found on forest fringes and amongst regrowth. In October it was carrying red fruits like miniature cherries on long slender stems. Like the previous plant this has male and female flowers which are to be found on separate plants. Little known in gardens, this genus has many attractive species are well worth a place in a garden. In this species the small flowers about one-half inch in diameter, produce profusely along stems, are pinkish red, cup-shaped and fragrant.

Species of *Codonopsis* in cultivation are almost all from the Himalaya and are plants for the rock or peat garden with attractive blue flowers, (not always pleasant smelling.) Only a few of them could be described as climbers and not very strong ones at that. In Hokkaido there are two species, *C. ussurensis* and *C. lanceolata*, both were tuberous and growing up through trees along the banks of a stream, their stems must have been 20 feet high. In October the leaves had shrivelled but on the herbaceous stems seed capsules about an inch in length were still hanging; although these had split open they still contained quite large thin dark wingless seeds. These were taken back to Kew and sown; I now wait for them to reach flowering size to see their flowers.

Two plants which climbed by tendrils I associate more with warmer climbs. One belonged to the cucumber family, *Schizopeplon bryoniaefolium*, and the other to the lily family, a species of *Smilax*. So late in the year it was not possible to know whether they would have any horticultural merit.

A method by which climbing stems can support themselves is when they have prickles which hook themselves on to some support; a good example is to be found in climbing roses. The only climbing rose that I found was probably *Rosa multiflora* which though bare of leaves still carried quite large bunches of tiny red hips. I have only seen this species lined out for budding or as sucker growth from older roses. Although supposedly common in Hokkaido, I found this species once only and that was in a roadside ravine growing over a medium sized tree. The main stems of the rose were about two inches thick and in the canopy of the tree they had produced a framework of branches from which there had come



a mass of young shoots which were hanging out of the tree. In a garden the best way of growing the stronger climbers is up and through a tree rather than against a wall or trellis. This results in a kind of extensive weeping standard which at flowering time can be magnificent.

The last two climbers are vines where stems are supported by tendrils. *Ampelopsis brevipedunculata*, though having uninteresting flowers has trilobed leaves which turn to a pale yellow in fall. This provides a delightful contrast to bunches of porcelain blue fruits which are produced in quite large bunches. Last and one of the most vigorous of all climbers is *Vitis coignetiae* which is quite capable of producing 15 feet of growth in one season. With this rate of growth the leaves are soon up amongst the forest canopy and in spite of their brilliant fall colour are scarcely noticed from below. It can best be appreciated when seen on the slopes of a distant hillside where the very large leaves, up to 12 inches wide and three lobed, glow in the fall sunshine. When growing amongst regrowth, the sheer weight of stems can break down young trees whilst others can be smothered or strangled. In amongst alpine scrub where leaves are smaller and rate of growth is slower a tangle of impenetrable stems can result. The leaves can be scarlet, crimson or maroon and there is a tendency for them to darken with age. For sheer brilliance of display there are few plants that can surpass this climber for fall display. It carries its leaves with the colorful display far longer than do most plants grown for fall colour. Even after the leaves have fallen there can be a second minor display in the bunches of tiny, black, very bitter grapes. In a garden it needs plenty of space and a support capable of supporting its weight. It is better grown through a tree than up a wall or trellis.

(conclusion)  
PROPOGATING BEE

Marge Baird, Bellevue, Washington

The third annual N.O.H.S.-Yarrow summer Propagating Bee took place July 21st at Marge Baird's. There were 16 present; half H.O.H.S., half Yarrow Garden Club, a N.O.H.S. group member.

Maureen Kruckeberg talked to us on fern reproduction and propagation and some spores were distributed for trial.

After viewing the plants in their garden "state," we repaired to the basement to choose from among 65 species (mostly rhododendrons and azaleas) to prepare for rooting in our flats of sand and peat.

Most common complaint from last year's Bee was loss of name tags! Evergreen azaleas were generally a success; also *Itea ilicifolia*, and *Gaulnettya* (*Gaulthettya*) *wisleyensis*.

Our plea for cast-off pots was generously answered by Mary Chantry, Dorothy Brauss, Emmy Ritter, and Heidi Carpine. Many thanks, ladies!

# *A Bouquet for Seattle*

Charles A. Lewis, Horticulturist, Morton Arboretum, Lisle, Illinois

On three or four occasions in the past few years, I have boarded a plane at O'Hare field, in the flat relatively dry midwest, and have been transported as by a magic carpet to a land embraced by snow-capped mountains, splashed with sparkling water, and draped with abundant greenery. In this benevolent climate of the Pacific Northwest, vegetation seems to spring forth in a particularly jubilant manner and, in a similar manner, do the residents seem to respond to the glory of their surroundings.

Perhaps my viewpoint is prejudiced, since almost all the people I have met here are in one way or another involved with plants, either professionally or as amateurs (from the latin "AMAT"-to love). In general, I think that plants are important to people in Seattle.

But a special enthusiasm must exist, else why would there be the landscaped triangles, and so sensitive a program of parks and urban forestry in addition to an abundance of private gardens. Though Cincinnati may make claim to having first spanned an interstate highway with a park, called Lytle Park, Seattle's Freeway Park is an absolute triumph of determination to bring vegetation into the most impossible of urban situations: a city-bisecting highway. That park shouts your delight in an understanding of vegetation.

You support these projects--with a vengeance! Where else has a major university been coerced by people pressure to establish a center for Urban Horticulture? Not only did you vocally lobby for it, but financially you are supporting it. Your splendid organizations--NOHS, Rhododendron Species Foundation--focus this energy into vitally positive channels. Everywhere one turns is to be found horticulture enthusiasm and excellence.

I do believe that a person who arises each day to feel the presence of mountain ranges with green forested slopes, pleasant water in such abundance (and I am not referring to rain), a climate tempered by the Pacific Ocean and rising land forms which permits the flourishing of a wide diversity of plants, the close proximity to Rain Forests, rocky mountain tops, rain shadow areas, clear streams and wild flowers, must be affected by all of these blessings. Your concerns must have been influenced by the magnificence that is ever available to you. It results in a kind of enthusiasm for plants that pops out all over Seattle.

But there is also a dark side to Seattle, at least so I have been told--the weather. I will never forget a conversation a doctor we visited for medical (not horticultural) reasons. Our talk drifted to the weather: how awful was the rain, high suicide rate, why no one should ever move here. I nodded in assent to his litany till I suddenly realized that he had laid a snare for me, trying to discourage any thought this midwesterner might have about moving to Seattle. Well--on three out of four trips the sun shone magnificently, and each time I was advised to never expect it again! So I cannot really believe that life is all that soggy and dreary.



Seattle, you deserve a bouquet for being so special a place, with so special a viewpoint among your populace. My midwestern hat is off to you, to the splendid individuals and organizations who I expect have a love affair with their natural surroundings and, really, are not at all ashamed to express it.

## Book Review

The Iris, Brian Mathew, B.T. Batsford Ltd., London, 1981.  
186 pages, Illustrations, 36 color, 32 black and white, 16  
line drawings. Price: \$32.00.

We have long anticipated such an updated version of the genus Iris following the Dykes concept, and we are indeed fortunate in having as its author a combination gardener, Wisley trained and nursery experienced, and scientist, with over fifteen years as field observer, fourteen of those as a taxonomic botanist at Kew, where at present he is a Principal Scientific Officer. His book is, and will remain, I am sure for a long time, the standard reference on the genus, the result of his personal concern with irises in the wild, in the herbarium and in the garden.

"As far as possible the information is from my observation of living and herbarium material." So begins Brian Mathew's preface remarks to understanding some 250 species, reminding us surely of W. R. Dykes himself, and in that tradition we still have a few unresolved problems, some unnamed plants, some areas such as Turkey and the Orient where they have not yet been satisfactorily sorted out, and much as we should have liked to see the taxonomy of the oncocylus nailed down, these and other matters are left to future explorations. Those familiar with his prior writing will welcome again the direct authority and ease of style that makes for pleasant reading. Each species is very thoroughly described, as are its variations, habitat and other considerations. All this indicates to the gardener how he might best succeed with it in his own particular conditions. As to diseases, they are dismissed with the wise instruction that it is "better to concentrate on growing the plants well than trying to cure sickly ones which have succumbed to disease" as most illnesses result from ill-suited placement or practices in cultivation. Yet advice is given on what to do should infections and infestations manifest themselves.

We can be much relieved that the familiar groupings are not much altered from our preconcept of the genus, and that there are few name changes to contend with. Be advised though that such changes reflect the opinion of the taxonomic community and do serve to settle old controversies for the most part. (It does help to remind ourselves of these if we put up new garden labels bearing both the old and the new name.) The basis for classification is that of Lawrence, which was of course derived from that of Dykes (and in turn from Lynch and Baker) with the major departure of following Taylor in disposing of the Pogons, plus a few innovations in the lesser categories.

It may seem to some that, although the work is intended for gardeners rather than for scientists, it is totally unrealistic to have omitted the garden-derived irises which fill most iris gardens. This was quite intentional since the majority of what is written about irises concentrates on those exclusively, much to the detriment of so many other good garden plants. Such things as chromosome counts and breeding goals have no place here, although certainly it is to be advocated that the better forms of the species be selected, preserved and disseminated in preference to the less satisfactory, and certainly the scientific aspects have markedly influenced the author's opinions and decisions.

The sturdy binding of dun-green buchram looks as if it will take much wear; it is jacketed in a flashy purple, lettered boldly in orange with a striking *Iris korolkowii* on the face and a clump of *Iris meda* against blue sky on the back. Inside are 36 more fine color reproductions, many the author's own photographs of exotic irises in exotic homelands of the Near East, which he has explored. There are another 32 in black and white plus 16 fine line drawings, all of which serve to illustrate and to lend understanding to the diversity of irises. There are 186 pages, glossary and index.

This book is the ideal companion to the AIS publication The World of Irises, which does so thoroughly treat the garden-bred and for space reasons could only tantalize the gardener with promise of many other kinds. Irises are part of almost every ecological niche in nature and in the garden. The greatest attribute of most of the species is that when they are happily suited in the garden they are quite self-reliant; plant them and forget about them. They are of such diversity that it is totally possible to have flower throughout the growing season, and they combine with other plants in easy harmonies in the garden picture.

- Roy Davidson

ATTENTION    ATTENTION    ATTENTION

Please be a patron and contribute \$25.00, tax deductible, toward the printing of 6,000 copies of the Northwest Ornamental Horticultural Society's 1983 Lecture Series.

Planning includes the famous European Landscape Architect, Russel Page and the Director of Longwood Gardens, Everitt Miller.

All patron's contributions will be listed on the brochure.

Make checks payable to: N.O.H.S.  
Send checks to: Marili Boyd  
The Highlands  
Seattle, Washington 98177

Please respond by September 30, 1982 to meet printer's deadline.

(Enclose the following form with your check.)

-----

Name: \_\_\_\_\_

Address: \_\_\_\_\_  
          \_\_\_\_\_

Phone Number: \_\_\_\_\_

How would you like to be listed on the brochure? \_\_\_\_\_



## *Joseph A. Witt*

### *Acclaimed for Devotion to Community*

Joseph A. Witt, a University of Washington research associate professor, known to thousands of fellow horticulturists and just plain-dirt-gardeners, is the winner of the Alumni Association's 1982 Outstanding Public Service Award.

It was presented to Witt, along with an honorarium of \$2,500 from private funds contributed to the UW Annual Giving Campaign, at the UWAA Recognition Luncheon, June 12.

Witt, curator of plant collections at the UW Arboretum in Washington Park, has been associated with the facility for more than 30 years. After receiving a bachelor of science degree in botany in 1943 and a master of science degree in plant physiology in 1948, both from Washington State University, he came to the UW as a graduate teaching fellow and quickly became acquainted with the wealth of woody ornamental plants and trees in the Arboretum.

In 1952, Witt was appointed recorder for the Arboretum and five years later was named assistant director. He remained in that post until 1973, when he assumed his present position, although he actually served as "untitled director" from 1972 to 1980, according to Dr. Harold B. Tukey, Jr., who now oversees the Arboretum's operation as director of the University's Department of Urban Horticulture.

In nominating Witt for the Outstanding Public Service Award, Tukey noted that, during the eight years the Arboretum was without a director, "Witt and his greatly reduced staff managed to keep the Arboretum afloat and to keep its most important programs active. The University and the citizens of Washington owe him a vote of thanks for his outstanding administrative leadership."

Although Witt is regarded as an exceptional teacher, he is best known for his devotion to community service. "His list of consulting assignments, most without pay, includes every botanical garden and arboretum and most municipal parks systems in the Pacific Northwest and some beyond," Tukey said.

"He is as much at ease talking with great academicians in universities and colleges as he is talking with little children just beginning to learn about plants. Over the years, he has given formal and informal lectures to all kinds of groups, averaging more than 20 per year. In-depth tours of the Arboretum for the public, which are mini-courses in themselves, are one of Professor Witt's strengths.

"He has always been available to those seeking information about landscape plants and how to grow them, and the success of the Arboretum as a public service institution is due almost entirely to his excellent work."

"He not only is a superb representative of the University, but an absolutely superb human being as well," Tukey said. "Professor Witt truly is a man for all Arboretum seasons."

Witt is also famed as Seattle's own "Johnny Appleseed." His love of the outdoors has taken him into much of the region's wilderness area. Wherever he goes, he takes paper bags and a pencil for seed collection and labeling.

Volunteers at the Arboretum greenhouse clean and sort the seeds, as well as those collected within the Arboretum, pack them and send them off in response to requests from arboreta, horticulture groups, and botany departments in most of the countries in the world.

The seeds are free to such groups, but are not available to the public, Witt has explained, "because of the limited number. We just don't have enough and we're really not in the seed business."

#### Promotion Slated

The University Board of Regents has approved Witt's promotion to full research professor of urban horticulture, effective July 1.

Learning of the promotion, Walter R. Hundley, superintendent of Seattle Parks and Recreation, lauded "Witt's unflagging ability to provide advice and consultation to hundreds of citizens who contact him during the year about the small and large problems of their gardens."

Also supportive of Witt's advancement, Dr. Robert T. Buchanan, professor of landscape architecture, said, "Professor Witt's role as curator of plant collections...stands as testimony of his dedication to public service and sharing of knowledge."

One of the ways Witt has shared his knowledge is writing articles, almost 100 of them. Most have been published in the Arboretum Bulletin.

He also has been active in professional organizations, serving as president of the American Association of Botanic Gardens and Arboreta in 1972-73 and as first vice president of the Pacific Northwest Chapter of the International Society of Arboriculture in 1979-81. He currently is vice president of the Washington Native Plant Society.

Reprinted by permission from  
Washington Alumnus, Spring 1982

NOHS Note Paper and Envelopes

Four distinctive botanical drawings

by Sally Dickman and Maureen Kruckeberg

5-1/2" x 4-1/4"

Eight notes per packet--two of each drawing

\$3.00 postage paid

Order from: Sallie D. Allen  
18540 26th Avenue Northeast  
Seattle, Washington 98155

Make checks payable to NOHS.

#### Errata:

Vol. 9, No. 2, Summer, 1982  
p. 26, pp. 2, line 7:  
for dowdy, read dowd.

p. 28, pp. 2, line 18:  
for two and one half inches,  
read two and one half feet.



# *Prunus triloba*

## *Seed Exchange*

Brian Halliwell, Royal Botanic Garden, Kew, England

*Prunus* is a large genus of approaching 200 species of trees and shrubs. Most of these are in cultivation and yet, from such a large group of garden worthy plants, surprisingly few are at all common. Amongst the earliest to flower are the various forms of Japanese apricot, flowering peaches and flowering almonds. Soon to follow these is *Prunus triloba*, once common in its double flowered form *Multiplex* but little seen in gardens today.

Both the single and double flowered forms were introduced into Europe by Robert Fortune in 1855 from China. This *Prunus* makes a suckering shrub or when kept to a single stem can be trained into a small tree up to twelve feet, although in a garden with regular pruning it can be much smaller. It has small oval leaves which taper at both ends with a coarsely toothed margin. Some leaves, especially those on strong-growing shoots, can be lobed but such a condition is infrequent and does not warrant the specific epithet of "Triboba." Late March and April flowers can be an inch across, single or fully double, and of a rose-pink with paler centers. These are produced singly or in pairs at the nodes along one-year-old stems. Once a framework has been trained in, a regular hard pruning should be practiced when all one-year-old shoots are cut back to two buds as the flowers fade. This, with regular feeding, will produce strong young shoots on which next year's flowers will be freely produced. These long stems make good cut flowers, and if the base of their stems are crushed with a hammer blow, last well in water.

Propagation is by cuttings taken in summer as the base of the new shoots are beginning to firm. These are detached, a few lower leaves removed and inserted into pots or boxes of sandy soil, and placed in a glasshouse or covered with polyethylene film in a protected place out of the sun. Some success can be achieved by using hardwood cuttings 10-12 inches in length of shoots produced during the current season taken when dormant, which are pushed into the open ground to half their length. When grown as a bush, suckering is common and rooted pieces can be detached in the winter. Plant the rooted cuttings or layers in a good soil where they have plenty of room to develop. During the early years train in a well-spaced framework on a short length of clear stem. If a small tree is desired, after planting out the cutting or layers select the strongest shoot to train up a stake and rub out the others. Any side shoots which develop during the growing season should be pinched out at two buds; continue to feed regularly with a general fertilizer and remove the tip of the shoot and allow to branch out at four feet six inches or six feet.



Do Not Forget: NOHS Fall Plant Sale, September 30th - October 1st, 9:30 a.m. - 9:00 p.m., both days, Bellevue Square.

# Tidbits

by Ladybug



Re your Tidbit item on Rhododendron-Ledum rusts: The rust fungus which attacks *Ledum* is *Chrysomyxa ledicola*. It spends part of its life cycle on the *Ledum* and another part on a number of species of spruce. It has been my personal experience on this one that if ledums with the disease are removed from an area containing any of the alternate hosts (spruce), the rust does not seem to survive on the ledums and the plants return to health.

In the case of rhododendrons, however, there are several rusts which parasitize them. Both of them, *Chrysomyxa piperiana* and *Chrysomyxa ledi* var *rhododendri*, also spend several stages of their cycle on alternate hosts (sitka spruce and hemlocks). The interesting difference with these two is that it seems they can spend their entire life cycle right on the rhodies, so removing them from the vicinity of alternate hosts may not do much good. It could spread from rhododendron to rhododendron.

Although I cannot speak for the several *Ledum* species and their susceptibility to their rust parasite, it does appear that not all rhododendron species and hybrids are equally susceptible to their rusts. I have seen situations in which only some of the rhododendrons present were being attacked--the others were clean.

In the case of rhododendrons, removing and disposing of all diseased tissues might be a very good idea, if there were no alternate hosts present. However, with sitka spruce or hemlocks in the vicinity this would not do much good.

Rusts on either of these two ericaceous plants does not seem to cause them severe damage--at least it's seemed that way to me when I've seen rust-infected plantings. The problem may be more aesthetic than anything else.

Our Washington State University, Pacific Northwest Plant Disease Control Handbook indicates that there are no fungicides registered for use on these rusts but Pirone suggests controlling them on rhododendrons and azaleas with several sprays of Ferbam (2T.) plus wettable sulfur (2T.) per gallon of water during July and August.

A newer chemical, Bayleton, appears to be quite effective against rusts on a number of crop species and some ornamentals. I don't believe though there's any evidence to suggest it will control rusts on ericaceous plants, nor is it registered to do so.

George J. Pinyuh, Area Extension Agent





A Ground Cover of Lolo Pass: In the middle of July, my trip to the west side of Mount Hood led me toward Lost Lake by Lolo Pass. But I did not reach Lost Lake for two reasons: first, I would have been under an elevation of 3000 feet and secondly, the pavement stopped leaving me with a dusty road. Trying to find my way back, I circled in the first turnabout, and parked, since my attention was captured by a nice purple patch of *Penstemon*. I decided to take a closer look. While stepping over a roadside ditch and climbing the steep northern slope, I found myself walking between mats of plants. The pattern of their foliage was familiar to me: *Campanula*, and looking around, I noticed hundreds of dainty and fragile pale blue flowers; *Campanula scouleri* were matting four feet in width.

Visiting around in the more narrow back roads, I discovered many more mats of this *Campanula*, all in the same habitats: steep slopes cut into the eroded sandy and silty bank. The surface of the ground was dry, but deep rooting allowed for underground moisture to be reached. All habitats could be found from the northern to western sides of the slopes. Returning to my vehicle I had to step carefully over a mat of this species growing on the shoulder.

Small plants were brought back home and potted in a mixture of sand and "Pro-Mix"; but all of the leaves died the next week due to a long heat wave with temperatures of 100 degrees and above. By mid-September, new rosettes were forming from the numerous roots.

Majella Larochelle, Seattle, Washington

*Ceterach officinarum* has always been one of my favorite ferns, one plant growing in sun and the other in a container in shade. During one of the exceptionally warm and dry periods this summer, unnoticed by me the sprinkler was completely missing the container-grown plant. When I discovered it, all of the fronds were shriveled, curled up and brown, apparently dead. When the sprinkler was altered to include that area of the garden that had been missed, watered thoroughly, the fronds unrolled and were as green and healthy looking as before.

Sallie Allen



Ledum Rust - Member's Theory: The rusts are with us in our gardens at all times in the form of fine dust-like particles. When we introduce a new plant, such as one collected in the wild, it is struggling for survival and susceptible to the invasion of such things as rusts. Although ledums once established do not require fertilization to grow strongly and flower well, it is helpful to lightly feed the plant when planted in the garden, helping it to establish quickly and forcing it into active healthful growth. A vigorous healthy plant is better able to cope with the various problems of disease, insects and rusts, and when well-established the program of feeding can be discontinued.



# NOHS FALL PLANT SALE

September 30th and October 1st  
Bellevue Square

Come work with us,  
learn and have fun.

Volunteers call:  
Jean Wilcox, Chairman 322-8771



## WELLS-MEDINA

## Nursery

FLOWERING SHRUBS & TREES  
SHADE TREES - FRUIT TREES  
VINES & GROUNDCOVERS

PLUS MANY OF THOSE  
UNUSUAL PLANTS THAT  
MAKE GARDENING A DELIGHT

8300 N.E. 24th St.,  
Bellevue

454-1853



## DIXIE NATIVES

LARGE SELECTION OF NURSERY-  
GROWN SOUTHERN NATIVES AND  
RARE EXOTIC SPECIES FORMERLY  
UNAVAILABLE ON WEST COAST.

PLEASE SEND S.A.S.E. FOR  
OUR FREE MAIL-ORDER LIST.

## WOODLANDERS

1128 COLLETON AVE., AIKEN, S. C. 29801

## SAVE THOSE POTS!

The NOHS Propagation Study Group  
can use all sizes of used pots

Call Sylvia Duryee, 329-2062

or

Marg Baird, 454-3862

WILL PICK UP

LEWISIA cotyledon

## SISKIYOU RARE PLANT NURSERY

brings you over 700 alpine, woodland, and  
rock garden plants, including 100 Northwest  
natives and 60 rock ferns. All plants care-  
fully selected, packed, and shipped to your  
door. New Annual Spring Catalog and Fall  
Supplement, \$1.50. Visitors by appointment.

J. Cobb Colley and B. Mineo  
Proprietors

2825 Cummings Road, Medford, Oregon 97501 (503) 772-6846

## NURSERY

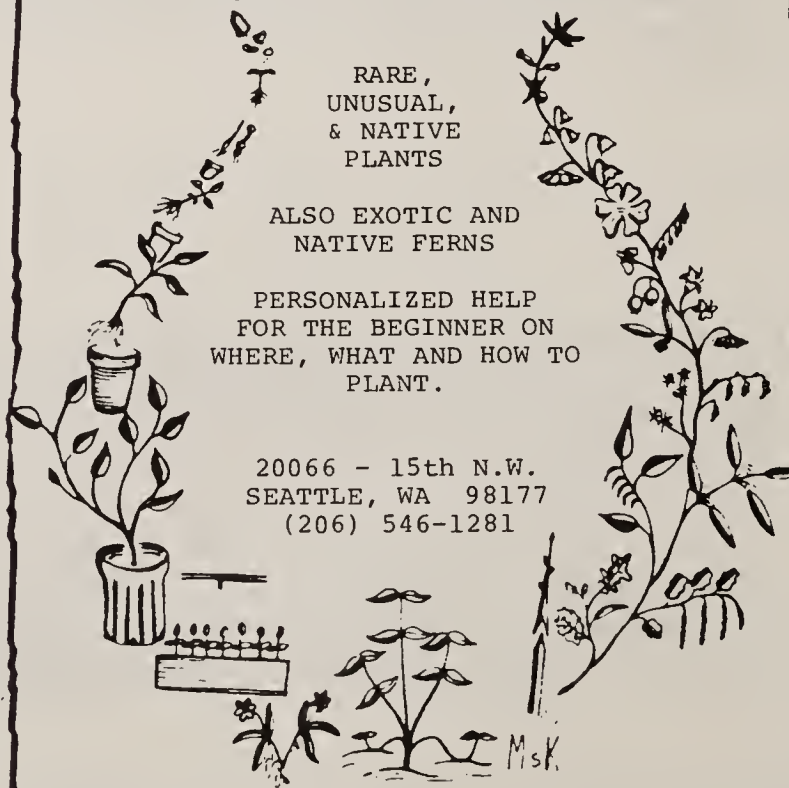
MAREEN S. KRUCKEBERG

RARE,  
UNUSUAL,  
& NATIVE  
PLANTS

ALSO EXOTIC AND  
NATIVE FERNS

PERSONALIZED HELP  
FOR THE BEGINNER ON  
WHERE, WHAT AND HOW TO  
PLANT.

20066 - 15th N.W.  
SEATTLE, WA 98177  
(206) 546-1281



"Oaks a specialty"



THIS SPACE

## RESERVED

For Your Advertisement

Special rates for Member advertisers

For further information write to:

Shirley Gorman  
Advertising, NOHS  
3305 43rd Northeast  
Seattle, Washington 98105



Justly Famous For Rhododendrons



**G  
R  
E  
E**

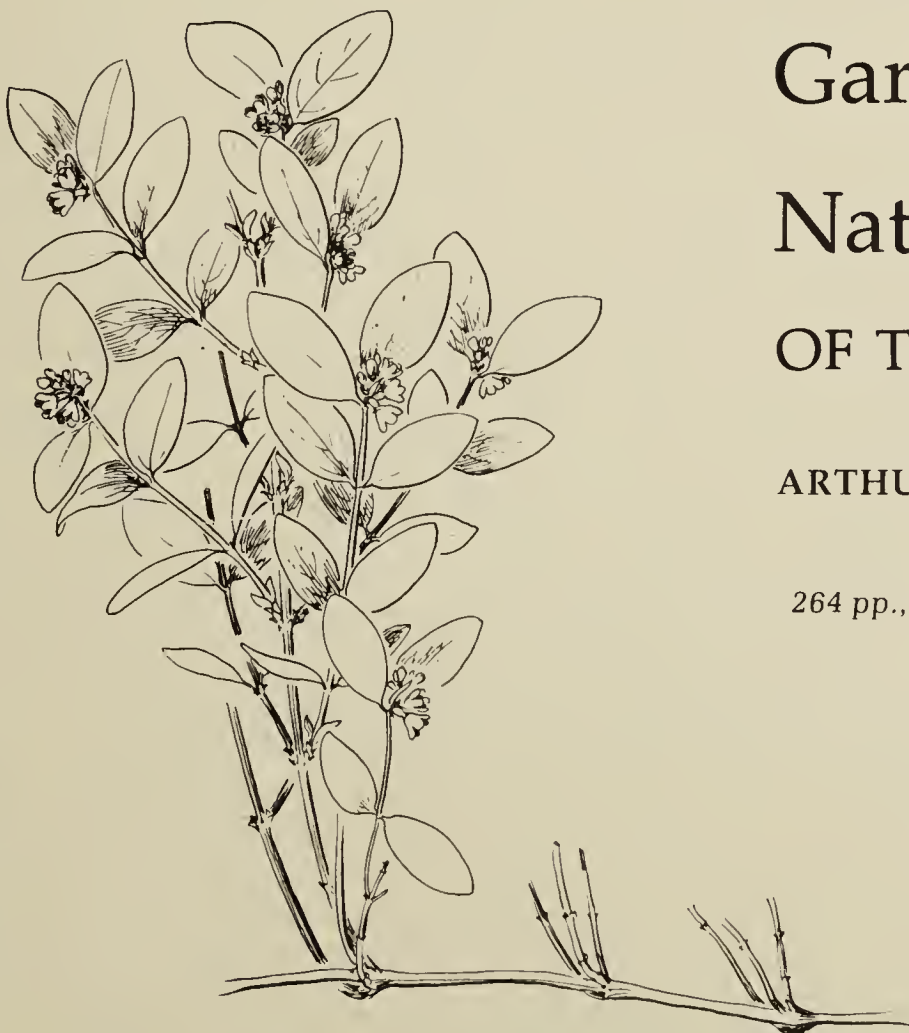
**G  
A  
R  
D  
E  
N  
S**

Azaleas  
Japanese Maples  
Dwarf Conifers  
Bonsai Materials  
Flowering Trees & Shrubs  
Rock Garden Plants

Good selection of  
unusual Horticulture Books —  
Color catalog describes, prices over 1600 plants.  
Widely recognized as a valuable reference book.  
1982 edition, \$2.00. World Wide Shipping.

Dept. HN

1280 Goodpasture Island Road  
EUGENE, OREGON 97401  
Telephone (503) 686-8266



## Gardening with Native Plants OF THE PACIFIC NORTHWEST

ARTHUR R. KRUCKEBERG

264 pp., illus., appendixes, bibliog., index, | \$24.95

Available at bookstores or  
**University of Washington Press**  
Seattle, WA 98105

Snowberry (*Symphoricarpos mollis* var. *hesperius*)

# *A Visit to Molbak's is a Beautiful Experience!*



13625 NE 175th, Woodinville  
Open 7 days a week, 9:30 am to 6 pm  
Bank cards accepted  
Phone: 483-5000  
(from Bellevue: 454-1951)

**Molbak's**  
GREENHOUSE & NURSERY

Looking for that special plant, book or  
gardening information? Contact our member  
advertisers. Don't forget to tell them that  
you saw their ad in. . .

Horticulture Northwest

Volume 9

Number 3

Fall 1982



Northwest Ornamental Horticultural Society  
c/o University of Washington Arboretum: X.D. 10  
Seattle, Washington 98195

NON-PROFIT

TIMELY MATERIAL  
PLEASE EXPEDITE

ADDRESS CORRECTION  
REQUESTED

Mrs. Joseph A. Witt  
16516 - 25th N.E.  
Seattle, WA 98155

BULK RATE  
U.S. POSTAGE  
**PAID**  
BELLEVUE, WA.  
PERMIT NO. 149